

**BY ORDER OF THE COMMANDER
56TH FIGHTER WING (AETC)**



AIR FORCE INSTRUCTION 40-201

**LUKE AIR FORCE BASE
Supplement**

25 APRIL 2012

Medical Command

**MANAGING RADIOACTIVE MATERIALS IN
THE US AIR FORCE**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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Air Force Instruction (AFI) 40-201, *Managing Radioactive Materials in the US Air Force*, 16 March 2011, is supplemented as follows. This supplement applies to all personnel, military and civilian, who bring radioactive materials (RAM) onto or use RAM on Luke Air Force Base (AFB). This publication applies to the U.S. Air Force Reserve units and members attached or assigned to Luke AFB. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional's chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afrims/afrims/afrims/rims.cfm>.

SUMMARY OF CHANGES

This publication has been revised and should be completely reviewed. Updates numbering to reflect changes in the recently published AFI 40-201, *Managing Radioactive Materials in the US Air Force*.

2.16. The base Bioenvironmental Engineer (BE), 56th Aerospace Medicine Squadron (AMDS) is the Installation Radiation Safety Officer (IRSO).

2.16.21. **(Added)** Supervises emergency health physics operations in the event of fire, spills, or explosions involving Radioactive Material (RAM), per AFI 40-201, paragraph 3.13.

2.20. **Contracting Officers** (the following apply to any contract awarded that will be performed on Luke AFB, Fort Tuthill, or Gila Bend AFAF that permits the use of RAM in the performance of the contract):

2.20.2. **(Added)** The Servicing Contracting Office will ensure that all contractors are aware of this requirement. The Servicing Contracting Office will also place a standardized statement in bid solicitations requiring bidders to identify any planned use (including subcontractor use) of RAM or devices. The contractor must submit the following documentation to the IRSO for review, preferably as attachments to a cover letter on company letterhead:

2.20.2.1. **(Added)** Copy of the Nuclear Regulatory Commission (NRC) License or Agreement State License, along with any amendments, covering the radioactive material to be used. The license must be current as shown by the expiration date. Of note, the IRSO is specifically prohibited from approving use for more than 180 calendar days per calendar year if the contractor submits an agreement state license.

2.20.2.2. **(Added)** Copy of the users' qualifications and proof of radiation safety training.

2.20.2.3. **(Added)** A brief description of the proposed activities, including a copy of the section of the Air Force contract describing the work to be done at the base and the inclusive dates of the work.

2.20.2.4. **(Added)** Statement of storage and security requirements or other particular needs of the contractor, if applicable.

2.20.2.5. **(Added)** Copies of the last two leak checks if required by license, permit, or State Agreement.

2.20.2.6. **(Added)** The name, local address, and telephone number for the responsible local representative and the name, address, and telephone number of the RSO named on the license.

2.20.5. **(Added)** Ensures that under no circumstances will an unlicensed radioactive source/device be used on Luke AFB. Any questions on contractor responsibility regarding this issue should be directed to the IRSO prior to the contractor starting any work.

2.20.6. **(Added)** Ensures immediate notification to IRSO concerning any incident or accident, loss, theft, or damage to the device or any alleged radiation exposures. Outside normal duty hours, contact the IRSO through the 56 FW Command Post (6-5600) and request assistance from the on-call BE representative (623-203-6852).

2.20.7. **(Added)** Ensures that procurement procedures prohibit the acquisition of radioluminous signs (per HQ AETC/SG Memorandum "Accountability and Registration of Radio Luminous Exit Signs," dated 26 Apr 04).

2.21.3.1. **(Added)** Logistics Readiness Squadron Operations Officer: Contact BE for receipt and shipment of RAM in accordance with Technical Order 00-110N-3, 10 CFR Part 20, 49 CFR Part 173, and this AFI.

2.21.3.2. **(Added)** Prior to shipping, provide BE (6-7521) with Shipping Document Number.

2.30. **(Added) Supervisors:** The supervisor of each operation or shop using, handling, or storing radiation producing equipment or materials:

2.30.1. **(Added)** Coordinates with the IRSO before starting any project including procurement, new use, storage, and/or disposal of radiation sources or any changes in working conditions or activities which would affect the Radiation Safety Program.

2.30.2. **(Added)** Submits written request to IRSO for consultation on radioactive waste. Provides information required by Technical Order 00-110N-3. Obtains written direction before transferring waste from the using facility.

2.30.3. **(Added)** Ensures personnel perform their duties in a way that ALARA principles are followed.

2.30.4. **(Added)** Coordinates with the Unit RSO for the training of employees who may be occupationally exposed to ionizing radiation.

3.10.12. **(Added)** Disposal Procedures:

3.10.12.1. **(Added)** The generator will initiate a written request for disposal instructions for all non-exempt RAM. If there is a question on whether an article is exempt, contact the IRSO. The request will include the information contained in Table 3.1.

Table 3.1. (Added) Required information.

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|---|
| <ol style="list-style-type: none"> 1. NSN 2. Nomenclature (Compass, Check course) 3. Quantity 4. Type of radioisotope (chemical symbol and atomic number, i.e. Ra²²⁶) 5. Physical form (solid, liquid) 6. Chemical form 7. Activity per item in curies 8. Intensity in mRem/hr at 4 inches from surface of unpacked article 9. Point of Contact |
|---|

3.10.12.2. **(Added)** For liquid waste, do not fill containers more than half full.

3.10.12.3. **(Added)** The generator will forward this request to the IRSO who will review, approve, and endorse the form. The IRSO will then forward the request to AFRRAD). AFRRAD will provide written disposal instructions to include packaging, labeling, and shipping requirements. Failure to comply with AFRRAD instructions could result in the generator and/or IRSO being subject to disciplinary action under AF regulations or prosecution under federal law.

3.10.12.4. **(Added)** While awaiting disposal instructions, the generator must store the radioactive waste in a facility with a placard approved by the USAF Radioisotope Committee (RIC). The facility must be an enclosed, covered area that provides enough protection to prevent damage to the package or to the waste itself. The area must have sufficient security to prevent loss or items from being stolen. The waste must be segregated from biological and chemical

wastes unless they have been produced as a direct result of permitted operations. Waste comprised of nuclides, having half-lives of less than 65 days, can be held and allowed to decay until it can be disposed of as non-radioactive waste. This must also be approved in the permit. Areas in which radioactive waste is generated and temporarily stored must be locked whenever unattended for more than 30 minutes.

JERRY D. HARRIS, JR.
Brigadier General, USAF
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 40-201, *Managing Radioactive Materials in the US Air Force*, 16 March 2011

AFMAN 33-363, *Management of Records*, 1 March 2008

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AFAF—Air Force Auxiliary Field

AFI—Air Force Instruction

AFB—Air Force Base

AFRIMS—Air Force Records Information Management Systems

AFRRAD—Air Force Radioactive Recycling and Disposal Office

AMDS—Aerospace Medicine Squadron

BE—Bioenvironmental Engineering

IRSO—Installation Radiation Safety Officer

OPR—Office of Primary Responsibility

NRC—Nuclear Regulatory Commission

RAM—Radioactive Materials

RDS—Records Disposition Schedule

RIC—Radioisotope Committee

RSO—Radiation Safety Officer